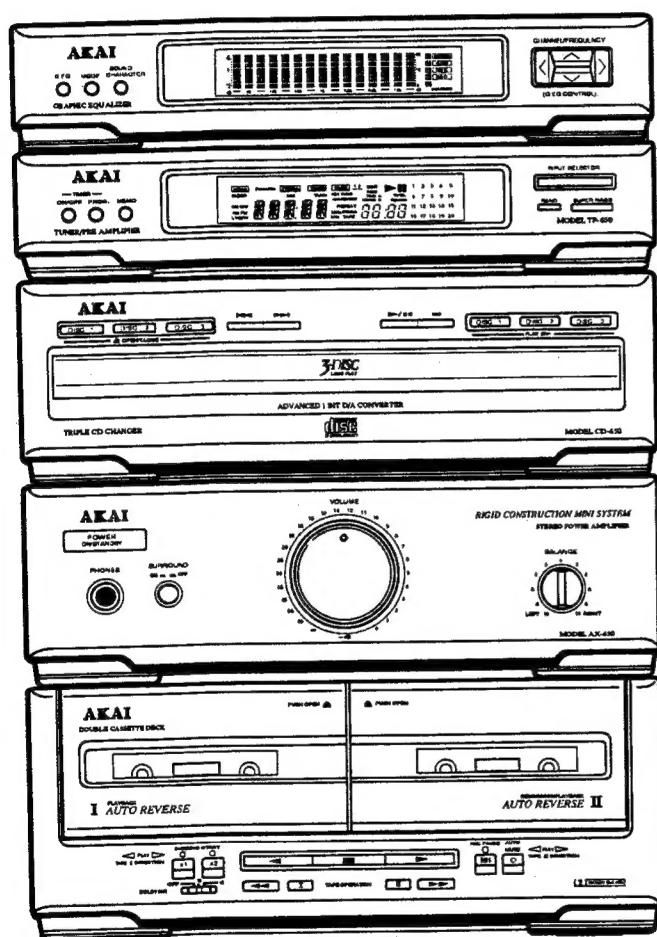


# MX-550/MX-650



- Illustrations in this manual show the MX-650 model.

## SYSTEM COMPONENTS

SYSTEM	MX-550	MX-650
TUNER/PREAMP	TP-550	TP-650
EQUALIZER	————	
POWER AMP	AX-550	AX-650
CASSETTE DECK		
TRIPLE CD CHANGER	CD-650	

## MINI STEREO COMPONENT SYSTEM

### Operator's Manual

This manual applies equally to the MX-550 and MX-650 models except where otherwise indicated.

## CHAINE STEREO MINI

### Manuel de l'utilisateur

Ce manuel est destiné aux modèles MX-550 et MX-650 sauf indication contraire.

## MINI-STEREO-KOMPONENTENSYSYSTEM

### Bedienungsanleitung

Diese Bedienungsanleitung gilt ebenfalls für die Modelle MX-550 und MX-650 außer wo anders angegeben.

## SISTEMA ESTEREO COMPUESTO MINI

### Manual del usuario

Este manual se aplica igualmente a los modelos MX-550 y MX-650 excepto allí en donde se indique lo contrario.

## MINI STEREO KOMPONENTENSYSSTEEM

### Gebruiksaanwijzing

Deze handleiding is ook van toepassing op de modellen MX-550 en MX-650, behalve waar anders aangegeven.

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Español .....	Página	85 - 115
Nederlands .....	Pagina	117 - 144

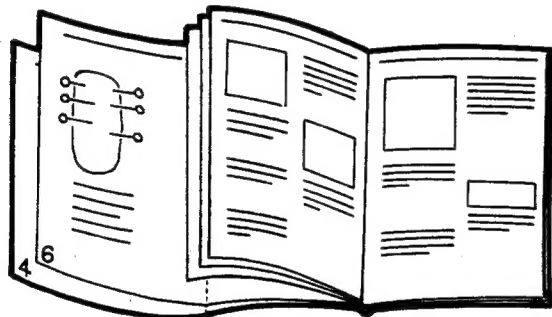
# Table of contents

Thank you for purchasing this mini stereo component system. To ensure optimum performance of this unit, please read this operator's manual thoroughly.

Precautions .....	2-3
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## How to use the manual

To use this manual, fold out page 4 and 6 while reading the instructions as shown in the illustration below.



## CLASS 1 LASER PRODUCT (CD-650)

This product contains a low power laser device. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer any servicing to qualified personnel.

CLASS 1 LASER PRODUCT  
KLASSE 1 LASER PRODUKT  
LUOKAN 1 LASER LAITE  
KLASS 1 LASER APPARAT

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN  
AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL : USYNLIG LASERSTRÅLING VED ÅB-  
NING. HÅR SIKKERHEDS-ÅBRYDERE ER LØST AF FUNKTION  
UNDGA UDSTRÅLING FOR STRÅLING.

VARO : AVATTAESSA JA SUOJALUKITUS OHITET-  
TAESSA OI ET ALTTIINA NÄKYNÄÄT NÄLLE LASERSTRA-  
LUSLLE.  
ÄLÄ KATSO SÄTEESEEN :

WARNING : OSYNLIG LASERSTRÅLING NÄR DENNA  
DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD.  
BETRÄKTA EJ STRÅLEN :

# Precautions

## Warning

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

1-En

## Power requirements

Power requirements for electrical appliances differ from area to area. Please ensure that your unit meets the requirements in your area.

If in doubt, consult a qualified electrician.

220-230V, 50Hz for Europe except the U.K.

240V, 50Hz for the U.K. and Australia

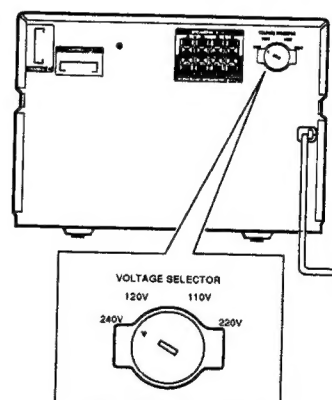
110V/120V/220V/240V, 50/60Hz convertible for other countries.

## Voltage conversion (not on all models)

Models for Europe, the U.K. and Australia are not voltage convertible. Each unit is preset at the factory according to its destination. Other models include a voltage selector that allows you to adjust the voltage to 110V, 120V, 220V or 240V as required.

If your unit's voltage can be converted:

Before connecting the power cord make sure that the VOLTAGE SELECTOR (located on the rear panel of the amplifier) is set to the correct voltage for your area. If necessary, use a screwdriver to turn the VOLTAGE SELECTOR until the correct voltage is indicated.



2-En

This equipment conforms to No.82/499/EEC,87/308/EEC standard.

3A-En

## About the power switch

This unit is not equipped with a primary power switch. Even when the amplifier's POWER button is off, the power supply to the unit is not completely turned off. If you wish to turn the power off completely, disconnect the power cord from the AC outlet.

4-En

# Controls and FL displays

## A MX-650 Graphic equalizer/Tuner/Preamplifier

- ① G.EQ button
- ② MODE button
- ③ SOUND CHARACTER button
- ④ Remote sensor
- ⑤ System FL display
- ⑥ Graphic equalizer FL display
- ⑦ CHANNEL/FREQUENCY  $\wedge / \vee / < / >$  buttons
- ⑧ INPUT SELECTOR button
- ⑨ SUPER BASS button
- ⑩ BAND button
- ⑪ TIMER ON/OFF button
- ⑫ TIMER PROG button
- ⑬ MEMO button

## B MX-550 Tuner/Preamplifier

- ① TIMER ON/OFF button
- ② TIMER PROG. button
- ③ MEMO button
- ④ System FL display
- ⑤ CHANNEL/FREQUENCY  $\wedge / \vee / < / >$  buttons
- ⑥ SUPER BASS button
- ⑦ BAND button
- ⑧ REMOTE SENSOR
- ⑨ INPUT SELECTOR button
- ⑩ SUPER BASS ENHANCER indicator
- ⑪ TREBLE tone control
- ⑫ BASS tone control

## C CD player

- ① DISC 1/2/3 ► PLAY buttons
- ② ■ Stop button
- ③ ► / || Play/Pause button
- ④ Disc tray
- ⑤ ►► / ◄◄ Skip forward/reverse buttons
- ⑥ DISC 1/2/3 ▲ OPEN/CLOSE buttons

## D Amplifier/Cassette deck

- ① VOLUME control
- ② BALANCE control
- ③ TAPE II PUSH OPEN
- ④ TAPE II cassette compartment door
- ⑤ TAPE II PLAY DIRECTION indicators
- ⑥ AUTO MUTE ○ button
- ⑦ REC PAUSE ■■ button and indicator
- ⑧ TAPE I/II operation buttons
  - ◄ Reverse play button
  - Stop button
  - Play button
  - Fast forward button
  - ◄◄ Rewind button
- ⑨ TAPE II OPERATION button
- ⑩ TAPE I OPERATION button
- ⑪ DUBBING START X1/X2 buttons and indicators
- ⑫ MX-650: DOLBY NR OFF/B/C button  
MX-550: DOLBY NR OFF/ON button
- ⑬ TAPE I PLAY DIRECTION indicators
- ⑭ TAPE I cassette compartment door
- ⑮ TAPE I PUSH OPEN

- ⑯ PHONES jack
- ⑰ SURROUND ON  $\blacksquare / \blacksquare$  OFF button
- ⑱ POWER ON/STANDBY button

## E System FL display

- ① SLEEP indicator
- ② MEMO indicator
- ③ FM AUTO indicator
- ④ STEREO indicator
- ⑤ DISC indicator
- ⑥ TUNED indicator
- ⑦ TRACK indicator
- ⑧ Timer function indicators
  - TIMER indicator
  - REC/WAKE indicators
  - ONCE/EVERY indicators
  - 1/2 programme indicators
- ⑨ CD EDIT indicators
  - EDIT indicator
  - FADE/TIME/CROSS indicators
  - A/B side indicators
- ⑩ Play indicator
- ⑪ Pause indicator
- ⑫ TOTAL indicator
- ⑬ Music calendar display
- ⑭ REMAIN indicator
- ⑮ Digital display
- ⑯ PROG indicator
- ⑰ TAPE indicator
- ⑱ Frequency indicators
- ⑲ REPEAT indicator
- ⑳ System information display
- ㉑ Band (FM/LW/MW) indicators
- ㉒ ON/OFF indicators

## F Graphic equalizer FL display (MX-650 model only)

- ① Equalizing level scale (+10dB to -10dB)
- ② Spectrum display
- ③ Full level display
- ④ Frequency level meter scale (0 to 24dB)
- ⑤ Preset channel indicators (1 to 5)
- ⑥ MEMO indicator
- ⑦ G.EQ indicator
- ⑧ REC indicator
- ⑨ SOURCE indicator

## What you should know to protect yourself

- Never touch the plug with wet hands
- Always pull the power cord out by its plug, never by its cord.
- Only let a qualified professional repair or reassemble the components. An inexperienced person might touch the internal parts and receive a serious shock.
- Never put anything, especially metal into the components.

## Protect the components too

- Use a household AC power source only. Never use a DC power source.
- If water is spilled on the components, disconnect them and call your dealer.
- Make sure that the components are well ventilated and away from direct sunlight.
- To avoid damage to the internal circuits and the external surface, keep the components away from heat (stoves, etc.).
- Avoid using aerosol sprays near the components as this could damage the finish or cause sudden ignition of the spray.
- To avoid damaging the finish, never use paint thinner or other similar chemicals to clean the components.
- Place the components on a flat and solid surface.
- If you do not plan to use the components for a long period of time, disconnect the power cord.

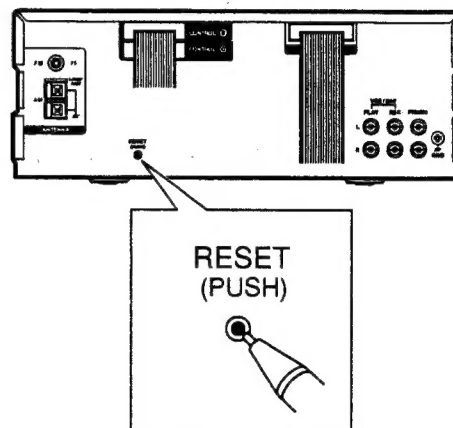
## Avoid moisture condensation

If the temperature of the room where the stereo system is placed is suddenly increased, or if the system is transported from a cold location to a warm one, condensation (tiny droplets of water) may form on the CD player's laser pickup lens or the cassette deck's transport section (such as capstan and heads), preventing correct playback. If excess condensation forms on the compact disc or inside the CD player, operation of the CD player will not resume until the condensation has had ample time to dissipate. If condensation forms inside the cassette deck, the tape will stick to the heads and be ruined, or it will not be transported properly. In either case wait 30 minutes to one hour before using the stereo system.

## In case of malfunction

A large amount of static electricity may cause this stereo component system to malfunction or stop functioning completely. In this case, the micro-processor must be reset to its initial operating mode as follows.

- 1 Unplug the power cord from your household AC outlet for at least 30 seconds, then reconnect it.**  
The micro-processor will be reset. If for some reason it is not reset, continue with step 2.
- 2 Press the RESET button on the tuner's rear panel.**



## Make Your Contribution to Protect the Environment

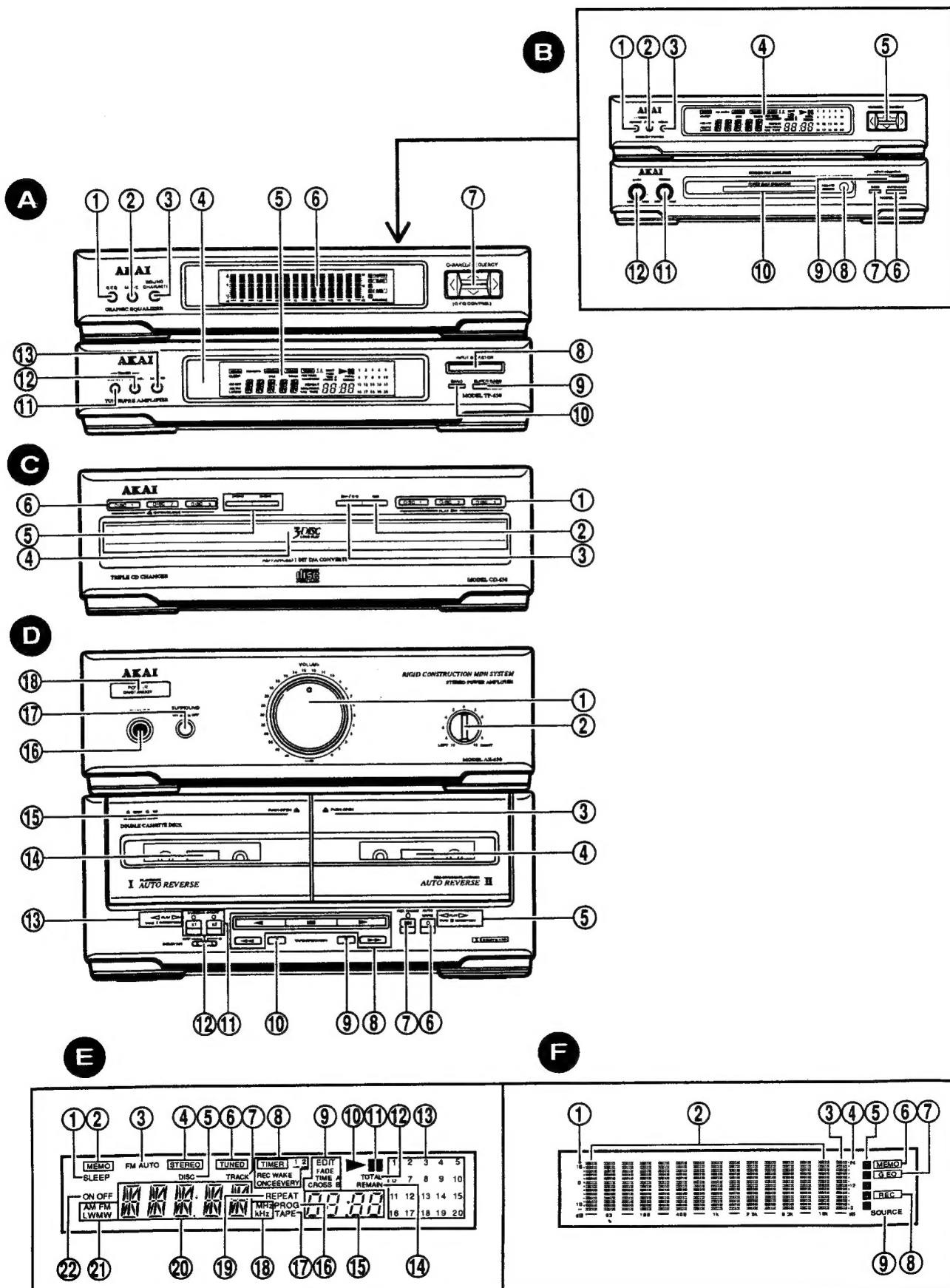
Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can. Please leave them at an appropriate depot.



29A-En

Conforme AL D.M. 13 APRILE 1989 DIRETTIVA CEE/87/308.

3B-It



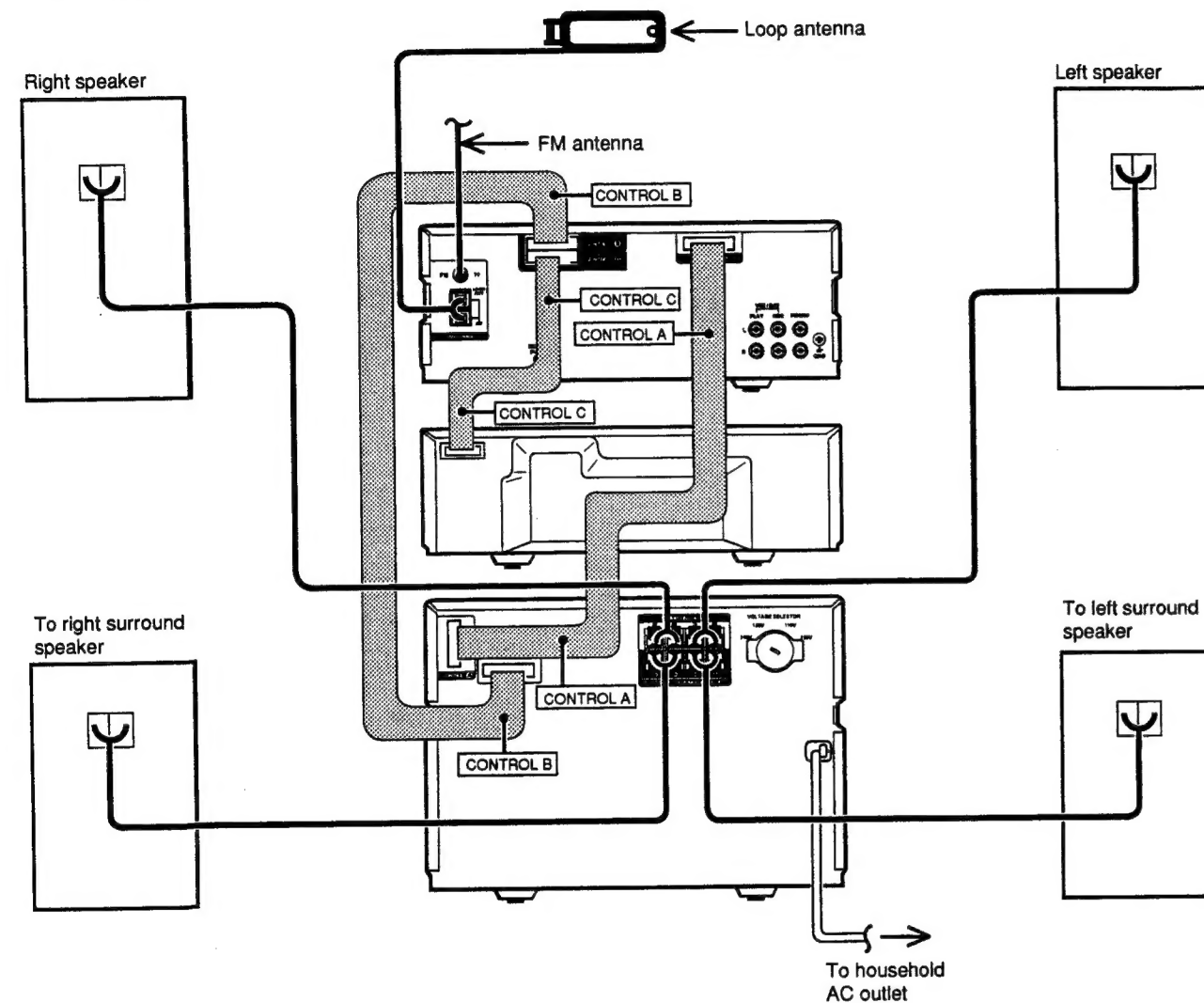
# Connections

## Before proceeding:

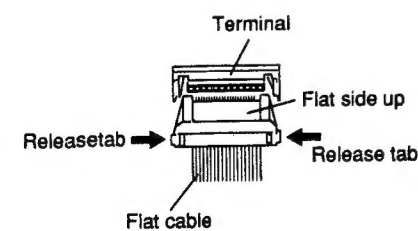
- Make sure that the power of all components is off before making connections.
- Connect everything securely. Loose connections can lead to malfunction.

## After all connections have been made:

- Connect the power cord to your household AC outlet.



## Flat cable connection



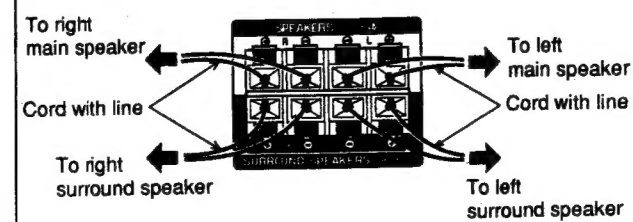
### To connect:

Flat cables and terminals are colour coordinated. Connect the red colour cable to the red colour terminal etc. Make sure that cables are firmly connected, with the flat side facing up.

### To remove:

While pressing on the release tabs, pull evenly on the flat cable.

## Speaker cord connection





# Remote control

The remote control can be used to conveniently operate the stereo system from a distance. Some functions are only operable with the remote control.

## Controls

- ① Transmitting window
- ② TUNER/CD 10KEY buttons
- ③ SOUND CHARACTER < / > and MODE buttons (For MX-650 operation only)
- ④ TAPE I/II deck operation buttons
  - TAPE I deck:**
    - ◀ Reverse play button
    - ▶ Play button
    - ◀◀ Rewind button
    - ▶▶ Fast forward button
    - ⏸ Rec pause button (Does not function for MX-650/550 model)
    - Stop button
  - TAPE II deck:**
    - ◀ Reverse play button
    - ▶ Play button
    - ◀◀ Rewind button
    - ▶▶ Fast forward button
    - ⏸ Rec pause button
    - Stop button
    - Auto mute button
- ⑤ CD player operation buttons
  - ◀◀ Reverse search button
  - ▶▶ Forward search button
  - PROG (Program) button
  - CLEAR button
  - REPEAT button
  - EDIT button
  - CD ▲ 1, 2, 3 buttons
  - CD ▶ 1, 2, 3 buttons
  - RANDOM button
  - ◀◀ Skip reverse button
  - ▶▶ Play/Pause button
  - Stop button
  - ▶▶ Skip forward button
- ⑥ Input selector buttons (TAPE, TUNER, CD, INPUT < / >)
- ⑦ POWER ON/STANDBY button
- ⑧ DIM button
- ⑨ DISPLAY button
- ⑩ MUTE button
- ⑪ VOLUME ∇ / ▲ button

## How to load the batteries

- 1 Slide the battery compartment cover in the direction of the arrow and remove it.
- 2 Load the batteries according to the polarity guides on the remote control unit.
- 3 Replace the battery compartment cover.

## Cautions

### For the remote control

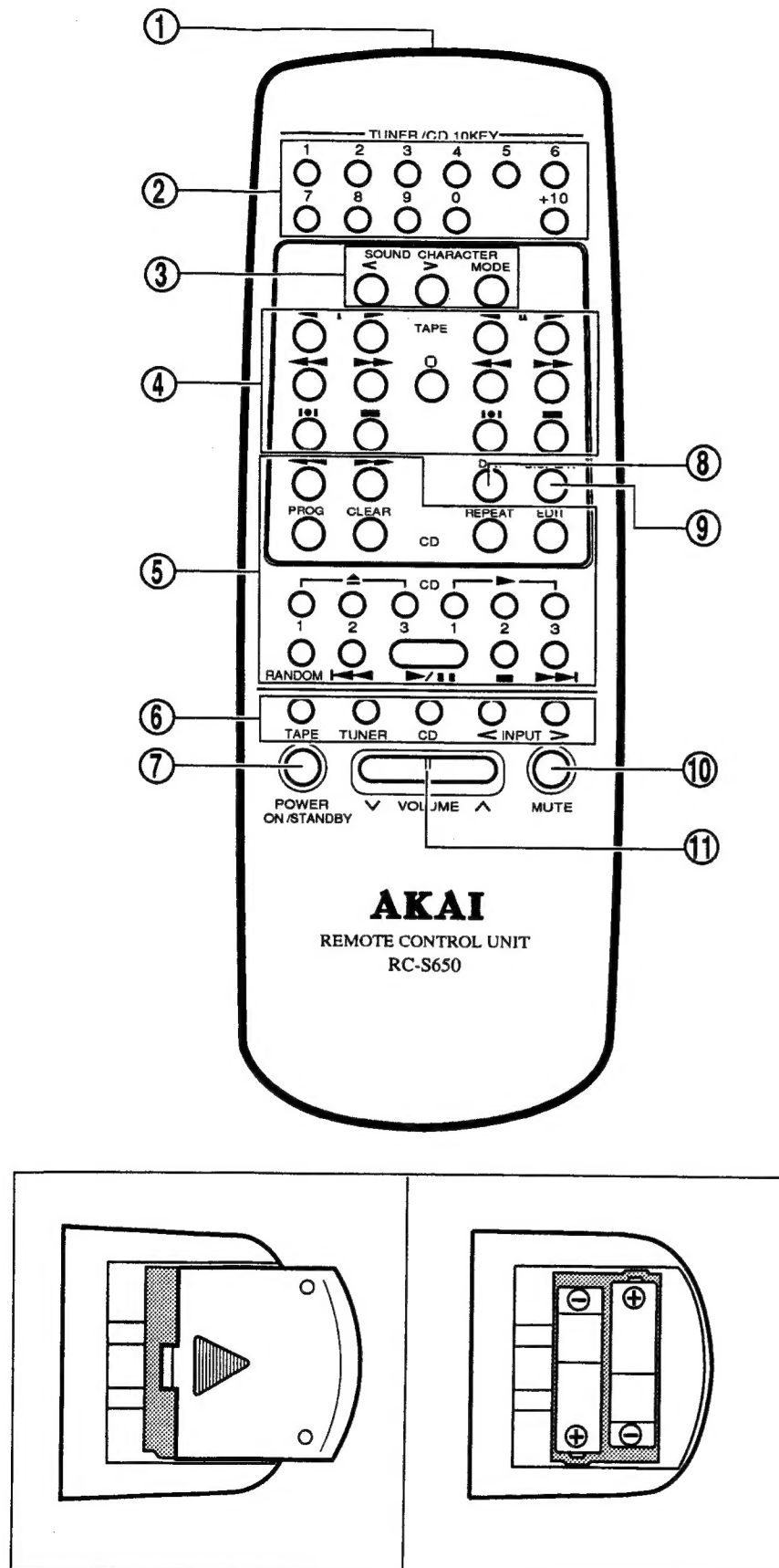
- The remote control cannot be used for recording or playback functions that require the combined pressing of two tape transportation buttons (intro scan or auto play for example). Please use the cassette deck's tape transportation buttons for the operation of such functions.
- Avoid dropping the remote control or getting it wet.
- Avoid exposing the remote control to direct sunlight or strong light as this may cause malfunction.
- Keep the remote control away from appliances that generate electrical noise (TV sets, micro-wave ovens, etc..)
- When replacing the batteries, clean all the remote control and battery terminals with a dry cloth.

### For the batteries

- When you do not plan to use the remote control for a long period of time, remove the batteries.
- Read the cautions printed on the batteries before inserting them.
- When replacing the batteries, replace them all at the same time. Do not mix old batteries with new ones.

## FL display dim function

FL displays can be dimmed or turned off completely. Press the remote control's DIM button once to dim the displays, twice to turn them off completely and once more to turn them back on.



## Operation

Point the remote control at the tuner's REMOTE SENSOR window and press the desired operation button. If the remote control will only operate from a short distance or narrow angle, this indicates that the batteries are weak and need to be replaced. Operating the remote control near fluorescent lights may cause malfunction.

# Basic system operation

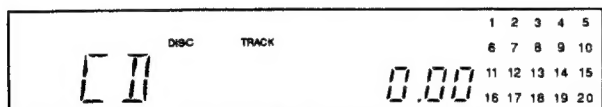
After you have finished connecting the system as explained in the "Connections" section, use the following procedure for basic operation.

- 1 Press the POWER ON/STANDBY button to turn the power on.**  
The TAPE I and II PLAY DIRECTION indicators will flash for 5 seconds while the system is stabilized. The system can not be used until stabilization is finished.
- 2 Press the INPUT SELECTOR button to select the source you want to listen to (CD, TAPE, TUNER, PHONO, VCR).**  
The system FL display will indicate the source selected.
- 3 Operate the selected source.**  
Refer to the appropriate section for source operation details.
- 4 Adjust the sound volume with the VOLUME control.**  
To increase the volume: Turn toward "0".  
To decrease the volume: Turn toward "∞".
- 5 When finished, press the POWER ON/STANDBY button again to turn the power off.**  
All FL displays except for the clock display will go out.

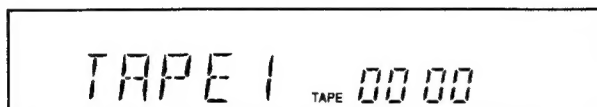
## Input source displays

The input source selected is indicated on the system FL display as follows.

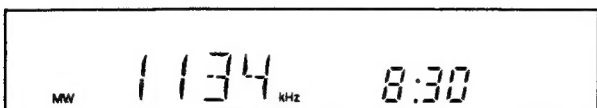
**When CD input is selected:**



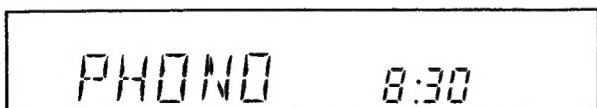
**When TAPE input is selected:**



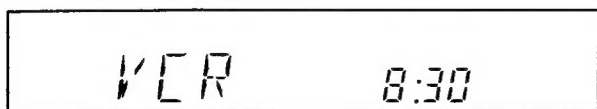
**When TUNER input is selected:**



**When PHONO input is selected:**



**When VCR input is selected:**



## Auto function

When the power is on, pressing the cassette deck's ► or ◀ button (when a cassette tape is loaded), or the CD player's ►/II button (when a CD is loaded) will set the system to the source selected and start playback automatically. Automatic selection of a memorized station is also possible by pressing the appropriate TUNER/CD 10KEY button on the remote control.

### Note:

- Automatic station selection will not operate when the the CD player is selected.
- Auto function does not operate during recording.

## Intelligent operation

When the power is off, pressing the remote control's TAPE, TUNER, or CD button will turn the power on and automatically set the system to the source selected. Playback of the selected source or reception of a station will start automatically.

### When the TAPE button is pressed:

If a cassette tape is loaded, playback will begin automatically.

### When the TUNER button is pressed:

The station last tuned before the power was turned off will be received.

### When the CD button is pressed:

If a compact disc(s) is loaded, the CD player will search through the disc holders (DISC 1, DISC 2, DISC 3) and playback the first CD it finds.

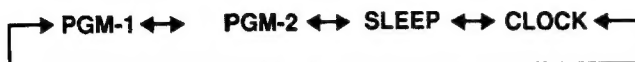
If a compact disc is not loaded, the disc tray will open after the CD player has first confirmed that the tray is empty.



# Setting the system's clock

Before the system's built-in timer can be used the clock must be set to the present time.

- 1 Press the TIMER PROG. button.**  
"PGM-1" will flash on the system FL display.
- 2 Press the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button until "CLOCK" is displayed.**  
Each time the CHANNEL/FREQUENCY button is pressed the FL display will change as follows:



- 3 Press the MEMO button.**  
The clock will be displayed and the hour will flash.
- 4 Press the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button to set the hour.**
- 5 Press the MEMO button to memorize the hour.**
- 6 Press the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button to set the minutes.**
- 7 Press the MEMO button to memorize the minutes and start the clock.**  
The clock display will be replaced by the normal display in 5 seconds.

**Note:**

- The timer employs a 24 hour clock. 0:00 indicates midnight and 12:00 indicates noon.
- Power backup is provided for a power failure lasting up to approx. 2 days. In the case of a longer power failure, clock data, as well as timer programme data, memorized stations etc., will have to be reset.

## Tuning step conversion (U version only)

**For customers in countries where MW broadcast frequencies are set at 10 kHz intervals:**

The MW frequency band of this tuner is preset to 9kHz tuning intervals. However, the frequencies of MW broadcasts in some countries are set at 10 kHz intervals. If your country uses 10 kHz tuning intervals the following tuning step conversion is necessary before you can tune in stations.

- 1 Turn the amplifier's power on.**
- 2 Press the INPUT SELECTOR button to select the TUNER source (frequency display).**
- 3 Press the BAND button for over 5 seconds until MW 1710 kHz appears on the system FL display.**

**To reset the tuner to 9kHz tuning intervals:**

- Press the RESET button located on the tuner's rear panel with a ball point pen etc.

# Station tuning and memorization

The tuner can be used to tune in stations automatically or manually. For convenience stations frequently listened to can be memorized and assigned channel numbers. Once memorized, the station that you want to listen to can be easily tuned by selecting its channel number. Up to 30 stations can be memorized.

## Station tuning

### Manual station tuning

- 1 Press the **INPUT SELECTOR** button to select the **TUNER** source (frequency display).
- 2 Press the **BAND** button to select the band.
- 3 Press the **CHANNEL/FREQUENCY** < or > button repeatedly to tune in a station.  
The TUNED indicator will light when a station is tuned.

### Automatic station tuning

- 1 Follow steps 1 and 2 of "Manual station tuning".
- 2 Press the **CHANNEL/FREQUENCY** < or > button for over 3 seconds.  
Automatic station tuning will begin and stop when a station is tuned. To continue automatic tuning press the < or > button again for over 3 seconds.

## Station memorization

### Manual station memorization

- 1 Follow steps 1 to 3 of "Manual station tuning" to tune a station.
- 2 Press the **MEMO** button.  
The MEMO indicator will flash and the channel indicator will light.
- 3 Press the **CHANNEL/FREQUENCY** ^ or v button to select a channel number.
- 4 Press the **MEMO** button to memorize the station.  
The MEMO indicator will go out indicating that the station is memorized.

#### Note:

- If a station is memorized at a channel number already used for another station, the old station will be replaced by the new one.

### Automatic station memorization

- 1 Follow steps 1 and 2 of "Manual station tuning".
- 2 Press the **MEMO** button.  
The MEMO indicator will flash and the channel indicator will light.  
To start memorization at a specific channel number, select the channel number at this point with the **CHANNEL/FREQUENCY** ^ or v button before continuing with step 3.
- 3 Press the **CHANNEL/FREQUENCY** > button.  
When a station is tuned it will be memorized and assigned a channel number. Memorization will stop when 30 stations have been memorized or the end of the band has been reached.

#### Note:

- To ensure clear reception, automatic station memorization only memorizes stations that have a strong signal. To memorize a weak station use the manual station memorization procedure.
- During automatic station memorization, unwanted stations can be skipped by pressing the > button while the MEMO indicator is flashing.

## Station selection

Memorized stations can be selected by pressing the **CHANNEL FREQUENCY** ^ or v buttons until the channel that holds the station you want is selected.  
Direct selection is also possible using the remote control's **TUNER/CD 10KEY** buttons.

#### Example:

To select channel number 2:

- Press the **TUNER/CD 10KEY 2** button.

To select channel number 10:

- Press the **TUNER/CD 10KEY +10** button, then press the **0** button.

To select channel number 22:

- Press the **TUNER/CD 10KEY +10** button twice, then press the **2** button.

## CAUTION!

If the power cord is disconnected, memorized stations will be retained for approximately 2 days. After this they will fade from the memory system and the micro-processor will be reset to its initial mode.

## FM AUTO stereo reception

This tuner incorporates an FM auto stereo reception system. When the system is set to the FM auto mode, the tuner will automatically choose between stereo or monaural output according to the received signal.  
To engage the FM auto mode, press the **BAND** button until the **FM AUTO** indicator is displayed.

#### When a stereo programme is tuned in:

The **STEREO** indicator will light on the FL display.

#### When a monaural programme is tuned in:

The **STEREO** indicator will disappear from the FL display.

#### If FM stereo reception is weak:

If reception of a station broadcasting in stereo is weak (in this case the **STEREO** indicator will flicker or go out), press the **BAND** button to cancel the FM auto mode. The **FM AUTO** and **STEREO** indicators will go out. The FM mode is now set for monaural reception. Noise and distortion will be reduced, but the station will not be received in stereo.

## Last station memory

This system's tuner has built-in last station memory. When the tuner's power is turned off, the station that was last tuned in will be memorized. When the power is turned on again the tuner will be automatically set to that station.

## FM antennas

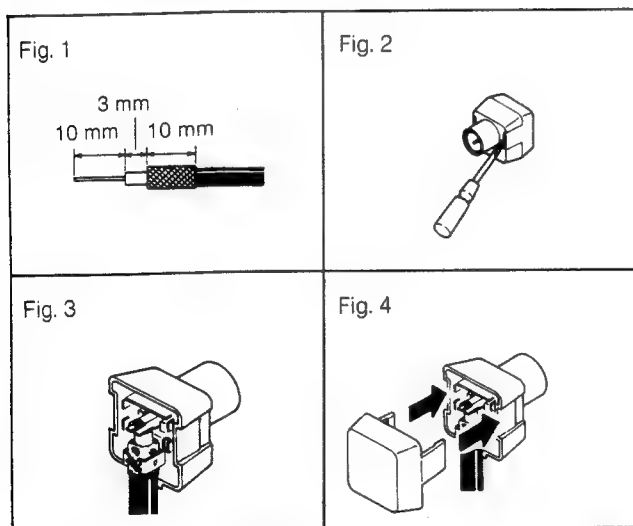
FM broadcasts provide excellent sound quality, but in order to take advantage of this, the radio waves must be received properly. We recommend that you select an antenna appropriate for your area.

### About the provided FM antenna

The FM antenna provided with this unit is a basic type. Extend it and move it around until the best reception is obtained.

### FM antenna plug

If you want to use an antenna other than the one provided, the antenna's cable (75 ohm coaxial cable) must first be attached to the provided FM antenna plug before it can be connected to the tuner's 75  $\Omega$  terminal (as shown in the following illustration).



## Antenna adjustment

If station reception is noisy, move the supplied antenna (Loop or FM antenna) around until a clear signal is received.

# CD player operation

The CD player's disc tray can be loaded with 1, 2 or 3 CDs for extended CD playback.

## Loading CDs

### 1 Press the DISC 1, 2 or 3 ▲ OPEN/CLOSE button to open the disc tray.

The DISC ▲ OPEN/CLOSE buttons for the disc holders where loading is possible (the left and right forward holders) will flash. The DISC ▲ OPEN/CLOSE button for the back disc holder will not light indicating that it must first be revolved before loading is possible.

### 2 Place a CD on each of the forward disc holders.

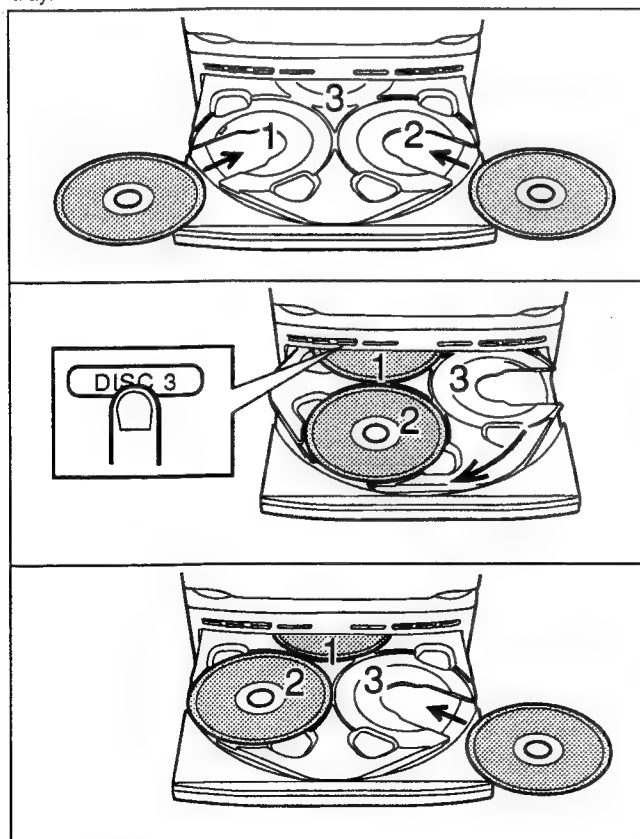
When loading 1 CD, place it on either of the forward disc holders.

## CAUTION!

When loading a 3rd CD do not try to load it without revolving the tray as explained below.

### To revolve the tray:

Press the DISC ▲ OPEN/CLOSE button of the back disc holder (the button that is not lit, DISC 3 in the example illustration). The tray will revolve allowing you to place a 3rd CD on the disc tray.



### 3 Press either of the two flashing DISC ▲ OPEN/CLOSE buttons to close the tray.

### Note:

- Avoid interrupting the disc tray when it is opening or closing, as this may damage it.
- Gently pressing the centre of the disc tray will also close it automatically.
- Close the disc tray when the CD player is not being used.

## CD playback

### 1 Load 1, 2 or 3 CDs.

Refer to "Loading CDs" for details.

### 2 Press the DISC PLAY ► button (1, 2 or 3) of the CD you wish to playback first.

### 3 Press the ■ button to stop playback.

### To stop playback temporarily:

#### ■ Press the ► / II button.

To resume playback press the ► / II button again.

## Opening the disc tray during CD playback

The disc tray can be opened during CD playback when you want to replace loaded discs or load new ones. CD playback will not be interrupted.

### 1 Press the DISC ▲ OPEN/CLOSE button of either of the discs (DISC 1, 2 or 3) that are not being played back.

The disc tray will open, allowing you to replace the loaded discs or load new ones.

## CAUTION!

- Only load or replace CDs on the two forward disc holders. Do not try to force a CD into the back disc holder as this will cause the CD to become jammed resulting in malfunction and/or damage to the system.
- Make sure that CDs are properly placed in the disc holders.

### 2 After loading CDs, press either of the DISC ▲ OPEN/CLOSE buttons that are flashing to close the tray.

## About the DISC ▲ OPEN/CLOSE buttons

The DISC ▲ OPEN/CLOSE buttons light to indicate that the disc data of loaded CDs has been read.

When the disc tray is open, flashing DISC ▲ OPEN/CLOSE buttons indicate the disc holders where CDs can be loaded. If a CD is in the playback position when the tray is opened, that CD's DISC ▲ OPEN/CLOSE button will stay lit.

## Playback features

### Direct search

Use the direct search function to start playback from a specific track. Direct search is operated with the remote control.

#### Example:

**To start playback from track number 4:**

- Press the TUNER/CD 10KEY 4 button.

**To start playback from track number 10:**

- Press the TUNER/CD 10KEY +10 button, then press the 0 button.

**To start playback from track number 25:**

- Press the TUNER/CD 10KEY +10 button twice, then press the 5 button.

#### Note:

- If the CD player is in the programme playback mode, engaging direct search will cancel the programme.

### Skip search

The skip search function allows you to "skip" tracks in the forward or reverse direction in order to go quickly to the desired selection.

**To skip tracks in the forward direction:**

- Press the ►► button.

**To skip tracks in the reverse direction:**

- Press the ◀◀ button.

### Manual search

Use the manual search function to search for any point on the compact disc. Manual search operates from the playback or pause mode only. Manual search is operated with the remote control.

**To search in the forward direction:**

- Press and hold the ►► button until the desired point is found.

**To search in the reverse direction:**

- Press and hold the ◀◀ button until the desired point is found.

#### Note:

- During manual search from the playback mode the playback volume will be reduced.
- During manual search from the pause mode the volume will be cut completely and the search speed will be increased by approximately 2 times the normal speed. To restart playback, press the ► / II button.

### Index search

Some compact discs include index numbers which you can make use of to go to certain pre-determined points within a selection.

Classical selections, for example, may contain several index numbers to note the 1st theme, 2nd theme, coda etc.. Index search is operated with the remote control.

- 1 From the stop mode, press the ►► or ◀◀ button to select the track you want.**
- 2 Press the remote control's ►► or ◀◀ button until the index number you want appears on the FL display.**
- 3 Press the ► / II button to start playback from the index number.**

#### Note:

- If the compact disc does not have the index number you have specified, playback will start from the track number programmed.

### Programme playback

Use this function to programme the CD player to playback tracks in the order that you like. Up to 30 tracks can be programmed. Programme play is operated with the remote control.

- 1 Press the PROG button.**  
If disc data has already been read, the CD player will go directly to the programming mode and the "PROG" indicator will flash on the system FL display. The disc number displayed indicates the disc that is ready to be programmed.

#### Before proceeding:

**When more than one CD is loaded:** If you want to start programming on a disc other than the one displayed at this point, first press the CD ► button (1, 2 or 3) for that disc in order to select it before continuing to step 2.

- 2 To programme select tracks:**  
**Use the TUNER/CD 10 KEY buttons to programme the tracks you want.**  
Each time a button is pressed the track number and programme number (P-01, P-02 etc.) will appear.

#### To programme all tracks:

**Press the CD ► button (1, 2 or 3) of the disc you are programming.**  
The programme number will appear (all tracks).

- 3 To continue programming on another disc, press the CD ► button (1, 2 or 3) for that disc and repeat step 2.**
- 4 Press the ► / II button to start programme playback.**  
After playback of all programmed tracks has finished, playback will stop automatically.

#### To stop programme playback:

- Press the ■ button  
Pressing the ■ button does not cancel the programme.

#### To cancel the programme:

- Press the CLEAR button  
The PROG indicator will go out. Normal playback will continue however.

#### Note:

- When the CD player is turned off, or if the ▲ button is pressed, all programmed tracks will be cancelled automatically.
- The same track number can be memorized as many times as desired.

## Programming additional tracks during programme playback

Adding tracks to a programme that has already started is possible using the following procedure. Programming of additional tracks will not interrupt playback of the original programme.

- 1 Follow steps 1 to 3 of the normal programming procedure.**
- 2 Press the ► / II button.**  
Additional tracks will be played back at the end of the original programme.

## Random playback

Use this function to programme the CD player to playback tracks in a random order. When more than one disc is loaded, tracks will be randomly played back from all discs. Random playback is operated with the remote control.

### ■ Press the RANDOM button.

If disc data has already been read, the CD player will go directly to the programming mode and "R-" will light on the system FL display. Once tracks are programmed random playback will start automatically.

### To cancel the random programme and stop playback:

- Press the ■ button.

### To cancel the random programme but continue normal playback:

- Press the CLEAR button.

### Note:

- Random playback will not operate while the programme playback mode is engaged (indicated by the PROG indicator). If necessary, press the CLEAR button to cancel the mode.

## About the "WAIT" and "READY" indicators

If disc data has not yet been read when the RANDOM or PROG button is pressed, "WAIT" will appear on the system FL display while disc data is read. During programme playback programming, "READY" will also appear. Programming is possible once these indicators have gone out.

## Repeat playback

Use this function to repeat regular playback, programme playback or random playback. During regular playback, the loaded discs (1, 2 or 3 discs) will be repeatedly played back. During programme or random playback only the tracks that are programmed will be repeatedly played back.

### ■ Press the REPEAT button.

The REPEAT indicator will light on the system FL display. Regular playback, programme playback or random playback will repeat continuously.

### To stop repeat playback:

- Press the ■ button.

Playback will stop but the repeat mode will not be cancelled.

### To cancel the repeat playback mode:

- Press the REPEAT button.

The REPEAT indicator will go out.

## Time display during CD playback

Press the DISPLAY button on the remote control to alternate between the following time displays during CD playback.

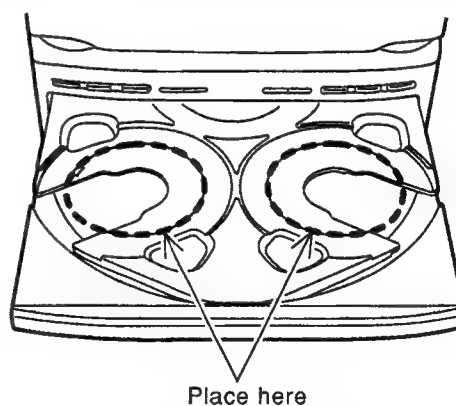
### During normal CD playback:

Track elapsed time display → Track remaining time display → CD total remaining time display → Clock display

### During programme playback or random playback:

Track elapsed time display → Track remaining time display → Programme total remaining time display (not available for random playback) → Clock display

## CD single (8cm CD) disc placement

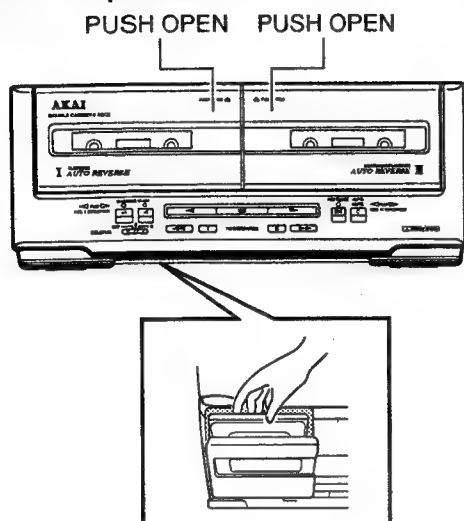




# Cassette deck operation

## Loading a cassette tape

- 1 Press the section marked **PUSH OPEN** on the **TAPE I** or **II** deck to open the cassette compartment door.
- 2 Load a cassette tape (exposed tape side down).
- 3 Press the section marked **PUSH OPEN** to close the cassette compartment door.



### Note:

- Do not press **PUSH OPEN** when the cassette deck is in any mode other than the stop mode.

## Cassette tape playback

- 1 Load a cassette tape in the **TAPE I** or **II** deck cassette compartment.  
Refer to "Loading a cassette tape" for details.
- 2 Set the **DOLBY NR** switch according to how the tape was recorded:  
**MX-650 model:**  
Tapes recorded with **DOLBY B NR**: Set to **B**  
Tapes recorded with **DOLBY C NR**: Set to **C**  
Tapes recorded without **DOLBY NR**: Set to **OFF**  
**MX-550 model:**  
Tapes recorded with **DOLBY NR**: Set to **ON**  
Tapes recorded without **DOLBY NR**: Set to **OFF**
- 3 Press the **TAPE OPERATION I** or **II** button to set the cassette deck for **TAPE I** or **II** operation.  
The selected button will light.
- 4 Press the **▶** or **◀** button to start playback.
- 5 Adjust the playback volume with the **VOLUME** control.
- 6 Press the **■** button to stop playback.

To fast forward the tape:

- Press the **▶▶** button.

To rewind the tape:

- Press the **◀◀** button.

### Note:

- Pressing the **▶▶** or **◀◀** button during playback will engage the **IPSS** mode.
- Pressing the **◀** button will start playback of the reverse side of the cassette tape.
- Playback direction is indicated by the **▷** and **◁** **TAPEDIRECTION I/II** indicators.

## To change the tape operation mode

To change the tape operation mode from the **TAPE I** deck to the **TAPE II** deck or vice versa, press the **TAPE OPERATION I** or **II** button. The selected button will light.

### Note:

- Pressing the **TAPE OPERATION I** or **II** button to change tape operation is not necessary when the remote control is being used. Simply press the tape operation buttons of the deck that you want to use.

## Playback features

### Continuous playback

Use this function to start playback of a cassette tape loaded in the **TAPE I** deck and continue with a cassette tape loaded in the **TAPE II** deck.

- 1 Load a cassette tape in each of the **TAPE I** and **II** decks.
- 2 Press the **TAPE OPERATION I** button to set the cassette deck for **TAPE I** operation.
- 3 Press the **▶** button to start playback.  
After playback of both sides of the **TAPE I** cassette tape has finished, playback of the **TAPE II** cassette tape will begin. Both sides will be played back.

### Note:

- Continuous playback will continue for 5 times and then be cancelled.

## IPSS: Instant Programme Search System

Use this function to search for and begin playback from any selection on a cassette tape. Up to 30 selections, in either direction from the current point of playback can be searched for.

- During playback press the **▶▶** or **◀◀** button the number of selections ahead or before the current point of playback that you wish to begin playback from.  
The tape will be wound to the chosen selection and playback will begin.  
The **▷** indicator will flash while the selection is being searched for. Once found, playback of the chosen selection will begin automatically.

## Intro scan

Use this function to scan through the selections on a cassette tape. Intro scan will playback the first 10 seconds of each selection. Playback can be started once the selection you want to hear is found. The remote control cannot be used for intro scan operation.

- 1 Press the ► button and ►► button simultaneously.**  
Intro scan will begin and the ► indicator will flash.
- 2 Press the ► button to start playback of the selection.**

### Notes for intro scan and IPSS:

- To engage intro scan on the reverse side of a cassette tape, use the ◀ and ◀◀ buttons.
- In order for IPSS and intro scan to work properly, there must be at least 4 seconds of blank space between each recorded section.
- The IPSS function may not work properly if you press the ►► or ◀◀ button too close to the start or end of a selection.
- Live recordings may contain applause between selections which is too loud to be detected as blank space. In this case the IPSS and intro scan operation may not operate properly.

## Auto play: automatic rewind and playback


Use the auto play function to rewind the cassette tape to the beginning and start playback again automatically. The remote control cannot be used for auto play operation.

- **Press the ► button and ◀◀ button simultaneously.**  
The ► indicator will flash while the auto play function is engaged. After the tape has been rewound to the beginning, playback will begin automatically.

### Note:

- To engage auto play on the reverse side of a cassette tape, use the ◀ and ►► buttons.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

## Tape counter display

- To alternate between the clock and tape counter display:**
- **Press the remote control's DISPLAY button repeatedly.**

### To reset the tape counter:

- **Press the remote control's CLEAR button when the tape counter is displayed.**

### Note:

- Ejecting a tape or turning the power off will reset the tape counter.

## Recording defeat tabs

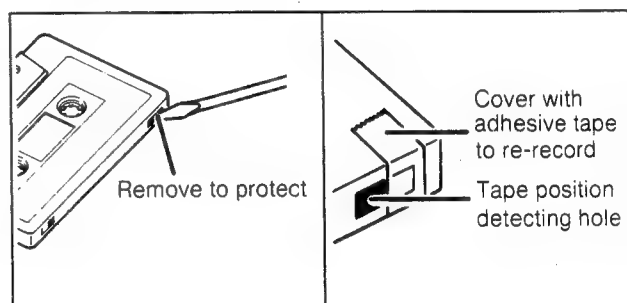
You can protect your tapes from accidental recording by removing the recording defeat tabs (one for each tape side) located above the A and B side indicators.

When the recording defeat tabs have been removed, the recording prevention system will be automatically activated to protect the tape if the REC PAUSE button is accidentally pressed during playback.

To re-record over the cassette tape, cover the holes with adhesive tape.

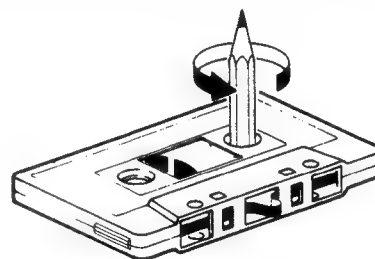
### Note:

- Do not cover the tape position detecting holes as this will hamper proper operation of the auto tape selector.



## Tape slack and leader tape advancement

Tape slack can cause the tape to twist or tangle around the capstan and pinch roller and ruin important recordings. Before using a cassette tape, take up tape slack with a pencil. Most cassette tapes include clear leader tape at the beginning. As recording is impossible on this section of the tape, it should be advanced before recording is begun.



# Sound adjustment

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## Volume adjustment

Use the VOLUME control to adjust the sound volume.

**To increase the volume:**

- Turn the VOLUME control toward "0".

**To decrease the volume:**

- Turn the VOLUME control toward "∞".

**Note:**

- Volume can also be adjusted with the remote control's VOLUME  $\wedge$  /  $\vee$  button.

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## Volume balance

Use the BALANCE control to adjust the left and right channel volume balance.

**For equal left/right channel volume output:**

- Set the control to the centre position.

**To decrease the right channel volume:**

- Turn the control towards the LEFT position.

**To decrease the left channel volume:**

- Turn the control towards the RIGHT position

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## Volume mute

The remote control's MUTE button can be used when you want to quickly lower the volume.

**To engage volume mute:**

- Press the MUTE button.

The VOLUME control's indicator will flash when mute is engaged.

To cancel the mute mode, press the MUTE button again.

**Note:**

- Mute is automatically cancelled when the power is turned off or when the INPUT SELECTOR button is pressed to change the input source.

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## Super bass

The bass can be increased with the SUPER BASS button. There are two super bass settings: SB-1 and SB-2.

### 1 Press the SUPER BASS button.

The SB-1 indicator will light on the system FL display.

On the MX-650 model, the SUPER BASS button will light while super bass is engaged.

On the MX-550 model, the SUPER BASS ENHANCER indicator will light while super bass is engaged.

### 2 Press the SUPER BASS button again.

The SB-2 indicator will light.

To cancel the super bass mode, press the button once more.

## Surround sound

A surround sound effect can be added to the normal playback sound to create a wider, "theater like" sound.

Surround speakers should be placed so that the sound is effectively directed towards the listening area. Move the surround speaker system during playback to find the best position.

Press the SURROUND button to the ON position to engage the surround effect. To turn the surround effect off, press the SURROUND button again.

**Note:**

- Although recording is possible while the surround sound effect is engaged, only the original playback signal will be recorded. The surround sound signal will not be added to the recording.
- The surround sound effect is not added to the main speakers or to the signal output from the PHONES jack.

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## Listening with headphones

Connect the headphones to the PHONES jack. Adjust the volume with the VOLUME control. When headphones are connected, sound from the speakers will be instantly cut.

### CAUTION!

- Do not listen for long periods of time at high volume levels, as this may damage your hearing.
- When connecting a pair of headphones during playback, turn the volume down first.

# Graphic equalizer operation (MX-650 model only)

The graphic equalizer contains 5 preset sound character curves that can be selected at any time. Sound character curves of your own design can also be created and memorized. Up to 5 curves can be memorized.

During recording, the graphic equalizer effect will be included in the recorded sound.

## Selecting a preset sound character curve

The following 5 preset sound character curves can be selected: "ROCK", "POP", "JAZZ", "SOFT", "ALTO". Each setting changes the character or tone of the music distinctly. Choose the curve that best suits the music you are listening to.

- 1 Press the **MODE** button until "ROCK", "POP", "JAZZ", "SOFT" or "ALTO" appears on the G.EQ. FL display.
- 2 Press the **CHARACTER** button to select the preset sound character curve you want.  
Each time the **CHARACTER** button is pressed a different sound curve will be selected.

→ ROCK → POP → JAZZ → SOFT → ALTO →

## Creating a sound character curve

- 1 Press the **G.EQ.** button.  
The G-EQ indicator will flash on the G.EQ FL display indicating that the G.EQ. control mode has been engaged.  
The sound character curve will appear.
- 2 Use the **CHANNEL/FREQUENCY** buttons to create a sound character curve.  
◁/▷ buttons: To select a frequency.  
^ / v buttons: To increase or decrease a frequency level.  
The last sound character curve memorized will appear and flash.

## Memorizing a sound character curve

Once a sound character curve has been created it can be memorized at any of the 5 preset channels (P-1 to P-5)

- 1 Follow steps 1 and 2 of "Creating a sound character curve" to create a curve.
- 2 Press the **MEMO** button.  
The MEMO indicator will light and the character curve and 1, 2, 3, 4 or 5 preset channel indicator will flash.
- 3 Press the **CHARACTER** button to select a preset channel.
- 4 Press the **MEMO** button again to memorize the sound character curve at the selected preset channel.
- 5 Press the **G.EQ.** button.  
The G.EQ indicator will stop flashing indicating that the G.EQ control mode has been cancelled.

### Note:

- Once the G.EQ mode is engaged, it will be automatically cancelled if a button is not pressed within 10 seconds.

## Selecting a memorized sound character curve

- 1 Press the **MODE** button until "P-1", "P-2", "P-3", "P-4" or "P-5" appears on the G.EQ. FL display.
- 2 Press the **CHARACTER** button to select the preset channel that holds the sound character curve you want.  
Each time the **CHARACTER** button is pressed a different channel will be selected.

→ P-1 → P-2 → P-3 → P-4 → P-5 →

## To cancel the graphic equalizer

Select the "FLAT" setting when you do not want the graphic equalizer effect added to the sound source being played back or recorded.

- Press the **MODE** button until "FLAT" appears on the G.EQ FL display.  
The **SOURCE** indicator will light to indicate that the graphic equalizer has been cancelled.

# Recording

## Before proceeding:

- Prepare the source that you want to record (load a compact disc, tune in the desired station etc.)
- Make sure that the cassette tape's recording defeat tabs are intact and that the cassette tape length is sufficient for your recording needs.

- 1 Load a cassette tape in the TAPE II deck.**
- 2 Press the INPUT SELECTOR to select the recording source.**
- 3 Press the TAPE OPERATION II button to set the cassette deck for TAPE II deck operation.**
- 4 Set the DOLBY NR switch.**  
**MX-550 model:**  
To record with DOLBY NR: Set to ON  
To record without DOLBY NR: Set to OFF  
**MX-650 model:**  
To record with DOLBY B NR: Set to B  
To record with DOLBY C NR: Set to C  
To record without DOLBY NR: Set to OFF
- 5 Press the REC PAUSE button.**  
The REC indicator will light and the ◁ or ▷ indicator will flash to indicate that the recording standby mode is engaged.
- 6 Press the ► or ◀ button (when recording on the reverse side of the tape) to start recording.**
- 7 Start playback of the recording source.**
- 8 Press the ■ button to stop recording.**

### To stop recording temporarily

- **Press the REC PAUSE button.**  
Press the ► or ◀ button to resume recording.

### Note:

- Pressing the ◀ button will start recording on the reverse side of the cassette tape.
- When the ▷ indicator is lit, recording will be carried out on the tape side that is visible. When the ◁ indicator is lit, recording will be carried out on the opposite side of the cassette tape.
- Metal position cassette tapes should not be used for recording.

## Recording features

### Auto mute

During recording, use the auto mute function to make a 4 second blank space between selections.

- 1 Press the AUTO MUTE button once at the point you want to leave a blank section.**  
The play indicator will light and the REC indicator will flash to indicate that the auto mute mode is engaged. After leaving a 4 second blank space the recording standby mode will be engaged. The play indicator will flash.
- 2 Press the ► or ◀ button (when recording on the reverse side of the cassette tape) to resume recording.**

### Bulk erasing

The auto mute mode can be used to erase long portions of tape.

- 1 Press the REC PAUSE button to engage the recording standby mode.**
- 2 Press the AUTO MUTE button twice.**  
The play indicator will light and the REC indicator will flash quickly to indicate that the auto mute mode is engaged. The auto mute mode will continue until the end of the tape is reached or the ■ button is pressed.

### Graphic equalizer recording (MX-650 model only)

During recording, the graphic equalizer effect will be included in the recorded sound. To record without the graphic equalizer effect, set the graphic equalizer to the flat mode.  
Do not change the graphic equalizer setting during recording.

#### ATTENTION

WHILST THIS CASSETTE DECK OFFERS A RECORDING FACILITY, AKAI WISHES TO POINT OUT THAT THE TAPING OF COPYRIGHT MATERIAL REQUIRES PRIOR CONSENT FROM THE COPYRIGHT OWNERS.

# CD Edit recording

The following three edit recording functions are available when recording from a compact disc.

## Fade edit

Use this function to fade out the end of a cassette when recording from a CD.

## Time edit

Use this function to edit the selections on a CD into 2 programmes that will fit within the recording length of each side of the cassette tape that you are recording on.

## Cross fade edit

Similar to the time edit function, with the addition of automatic fade out/fade in between tracks to make transition smooth.

### Note:

- 4 second blank spaces are automatically inserted between tracks during fade or time edit recording.

## Fade edit recording

### 1 Load the compact disc you want to record from into the CD player.

Make sure that the system is set to the CD function. If the CD's disc data has not been read, play it back for a few seconds and then stop playback before proceeding.

### 2 Load a blank cassette tape into the TAPE II deck.

### 3 Press the remote control's EDIT button until the EDIT FADE indicator flashes on the system FL display.

The system FL display changes as follows each time the EDIT button is pressed.



### 4 Press the remote control's PROG button.

EDIT FADE will stop flashing and the TOTAL REMAIN indicator will light.

### 5 Press the ► / II button to start fade edit recording.

Recording and CD playback will start. At the end of recording on the first side of the cassette tape, fade out will be automatically activated and recording will continue on the reverse side. The track that was faded out will first be recorded again in its entirety on the reverse side before the remaining tracks are recorded.

**To stop recording and playback:**  
■ Press the CD player's ■ button.

**To cancel fade edit recording**  
■ Press the remote control's CLEAR button.  
If the tape counter is displayed, first press the remote control's DISPLAY button to cancel the tape counter display. If the CLEAR button is pressed during recording, recording will stop but CD playback will continue.

## Time edit and cross fade edit recording

- 1 Follow steps 1 and 2 of "Fade edit recording".
- 2 Press the remote control's EDIT button until the EDIT TIME indicator (for time edit recording) or EDIT CROSS indicator (for cross fade edit recording) flashes on the system FL display.
- 3 Press the remote control's PROG button.  
The TOTAL REMAIN indicator will appear and the C-4 indicator will flash.
- 4 Set the recording length of the cassette tape being used:  
**When using a C-60 cassette tape for example:**  
Press the remote control's TUNER/CD 10KEY +10 button until "C-6" appears on the FL display, then press the 0 button. "C-60" will appear and the CD player will then edit the CD's selections into A and B programmes.
- 5 Press the ► / II button to start edit recording.  
The cassette tape will be rewound to the beginning and recording and CD playback will be started automatically. When recording on one side of the cassette tape has finished the cassette tape will be reversed and recording will then continue on the reverse side.

**To stop recording and playback**  
■ Press the CD player's ■ button.

**To cancel time or cross fade edit recording**  
■ Press the remote control's CLEAR button.  
If the CLEAR button is pressed during recording, recording will stop but CD playback will continue.

## To confirm the A and B programmes

The track numbers and total recording time of the A and B programmes can be displayed on the system FL display for confirmation by pressing the remote control's ►► or ◀◀ button during the stop mode.

**Note:**  
• When recording is started from the A programme, both the A and B programmes will be recorded. When started from the B programme, only that programme will be recorded.



# Timer-controlled functions

This system features three timer-controlled functions: timer recording, timer wake up and timer sleep.

2 separate timer recording or timer wake up programmes (or one each) can be memorized (PGM-1 and PGM-2).

Make sure that the system's clock is set to the present time before programming. Refer to "Setting the clock".

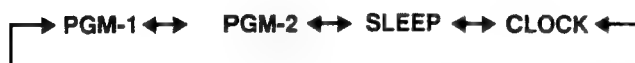
## Timer recording

Use this function for timer-controlled recording of a station broadcast. Two settings are available: "ONCE" and "EVERY". Choose "ONCE" to record a broadcast once. Choose "EVERY" to record a broadcast every day at the same time.

### Before proceeding:

- Make sure that a blank cassette tape is loaded into the TAPE II deck. Also make sure that the station you want to record has been memorized at one of the tuner's channels. Refer to "Station tuning and memorization".

- 1 Press the **TIMER PROG** button.  
"PGM-1" will flash on the system FL display.
- 2 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select "PGM-1" or "PGM-2".  
Each time the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button is pressed the display will change as follows:



- 3 Press the **MEMO** button to memorize the setting.  
"REC" will flash and the 1 or 2 programme indicator will light.
- 4 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select "REC".  
Each time the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button is pressed the display will alternate between "REC" and "WAKE".
- 5 Press the **MEMO** button to memorize the setting.  
"ONCE" will flash.
- 6 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select "EVERY" or "ONCE".  
Each time the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button is pressed the display will alternate between "EVERY" and "ONCE".
- 7 Press the **MEMO** button to memorize the setting.  
The ON time display will appear.
- 8 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to set the turn on hour.
- 9 Press the **MEMO** button to memorize the hour.
- 10 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  to set the turn on minutes.
- 11 Press the **MEMO** button to memorize the minutes.  
The OFF time display will appear.
- 12 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to set the turn off hour.
- 13 Press the **MEMO** button to memorize the hour.
- 14 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to set the turn off minutes.

- 15 Press the **MEMO** button to memorize the minutes.  
The channel indicator will light.
- 16 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select the channel that contains the station you want to record.
- 17 Press the **MEMO** button to memorize the channel.
- 18 Programming for timer recording is now finished. The timer, however, must be turned on in order for timer recording to operate. Refer to "Turning the timer on".

### Note:

- When using the timer recording function we recommend that you set the volume to minimum.
- We recommend that the turn on time for timer recording be set one or two minutes ahead of the start of the programme you want to record.

### To cancel timer recording:

- Press the **TIMER ON/OFF** button until the timer programme indicator (1 or 2) goes out.  
Data will be retained but timer recording will not be activated. To reactivate timer recording, press the **TIMER ON/OFF** button until the appropriate timer programme indicator lights again.

### Note:

- Timer recording can only be cancelled when the power is on.

## To set the turn on/off time over 2 days.

### Example:

To set the turn ON time at 11:30 PM, and the turn off time at 2:30 AM of the next day.

- 1 Set the turn on time at 23:30.
- 2 Set the turn off time at 2:30.  
The maximum interval between turn on and off times that can be set is 23 hours and 59 seconds.

## Timer wake up

Use this function to start and stop CD or cassette tape playback or to turn a station on and off automatically. This function can be used to conveniently wake yourself up in the morning. Two settings are available: "ONCE" and "EVERY".

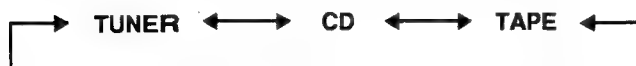
Choose "ONCE" to turn the station on and off once. Choose "EVERY" to turn the station on and off every day at the same time.

### Before proceeding:

- Prepare the source you want to listen to (compact disc, cassette tape etc.). If you want to listen to a station, it must first be memorized at one of the tuner's channels. Refer to "Station tuning and memorization".

- 1 Follow steps 1 to 3 of "Timer recording".
- 2 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select "WAKE".  
Each time the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button is pressed the display will alternate between "REC" and "WAKE".

- 3 Follow steps 5 to 14 of "Timer recording".
- 4 Press the **MEMO** button to memorize the minutes.
- 5 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select the source.  
The FL display will change as follows each time the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button is pressed.



- 6 Press the **MEMO** button to memorize the source.  
When you have selected CD or TAPE:  
Continue with step 7.  
  
When you have selected TUNER:  
Use the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button to select the channel that contains the station you want and then press the **MEMO** button to memorize it before continuing with step 7.
- 7 Programming for timer wake up is now complete. The timer, however, must be turned on in order for timer wake up to operate. Refer to "Turning the timer on".

#### To cancel timer wake up:

- Press the **TIMER ON/OFF** button until the timer programme indicator (1 or 2) goes out.  
Data will be retained, but timer wake up will not be activated. To reactivate timer wake up press the **TIMER ON/OFF** button until the appropriate timer programme indicator lights again.

#### Note:

- Timer wake up can only be cancelled when the power is on.

## Turning the timer on

Once you have memorized a timer recording and/or timer wake up programme, turn the timer on as follows.

- 1 Press the **TIMER ON/OFF** button until the timer programme number(s) where you have memorized the information is selected.  
When you have memorized only 1 timer programme press the **TIMER ON/OFF** button until the timer programme number (1 or 2) is displayed.  
When you have memorized 2 timer programmes (1 timer recording programme and 1 timer wake up programme for example) press the **TIMER ON/OFF** button until both timer programme numbers (1 and 2) are displayed. The programme with the earliest start time will be underlined.
- 2 Press the **POWER** button to turn the power off.  
At the memorized turn on time, the power will be turned on and recording or source playback will begin. At the memorized turn off time, the power will be turned off.

## Timer sleep

Use the timer sleep function to turn the power of all components off automatically. The timer can be set to turn off the components 30 minutes, 1 hour, 1 and a half hours or 2 hours from the present time.

- 1 Press the **TIMER PROG** button.  
"PGM-1" will flash on the system FL display.
- 2 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button until "SLEEP" appears.
- 3 Press the **MEMO** button to memorize the setting.  
"OFF" will flash.
- 4 Press the **CHANNEL/FREQUENCY**  $\wedge$  or  $\vee$  button to select the turn off time.  
  
30 minutes from the present time:  
Select the 0:30 setting  
1 hour from the present time:  
Select the 1:00 setting  
1 and a half hours from the present time:  
Select the 1:30 setting  
2 hours from the present time:  
Select the 2:00 setting

#### To cancel the sleep timer:

Select the OFF setting

- 5 Press the **MEMO** button to memorize the setting.  
The timer sleep function is now operating. At the designated turn off time, the power of all components will be automatically turned off.

#### Note:

- Turning off the power before the timer sleep turn off time is reached will cancel the timer sleep function.
- If the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button is not pressed within 10 seconds in step 4, the turn off time will be automatically set to the setting displayed.

## Timer sleep turn off time confirmation or adjustment:

Once the timer sleep mode has been engaged, it can be confirmed or adjusted as follows.

- 1 Press the **TIMER PROG** button.  
"PGM-1" will flash.
- 2 Press the **CHANNEL/FREQUENCY** button until "SLEEP" appears.
- 3 Press the **MEMO** button.  
The time remaining until the turn off time will be shown on the system FL display. If you want to adjust the time at this point use the CHANNEL/FREQUENCY  $\wedge$  or  $\vee$  button.
- 4 Press the **MEMO** button again when confirmation or adjustment is finished.

# Tape dubbing

The two cassette decks allow you to dub (copy) a prerecorded tape onto a blank tape. This is called tape dubbing. There are two dubbing speeds available; x1 (normal speed) and x2 (double speed).

## Before proceeding:

- Make sure that both cassette tapes are rewound.
- Make sure that the recording defeat tabs of the tape you are recording on are intact.

- 1** Load the pre-recorded cassette tape into the TAPE I deck.
- 2** Load the blank cassette tape into the TAPE II deck.
- 3** Press the DUBBING START x1 (normal speed) or x2 (double speed) button to start dubbing.  
Both decks will stop automatically when dubbing is finished.

### To stop dubbing:

- Press the ■ button or the remote control's TAPE II ■ button.

### To resume dubbing:

- Press the DUBBING START x1 or x2 button again.

### To stop dubbing without stopping playback:

- Press the REC PAUSE button, or the remote control's TAPE II ■ button.

The TAPE II deck will enter the recording standby mode while playback of the cassette tape in the TAPE I deck continues.

### Note:

- DOLBY NR is cancelled automatically during tape dubbing.
- Do not change the dubbing speed while dubbing is in progress.
- For convenience during dubbing, it is recommended that you choose a recording tape that is the same length as the playback tape.

## Listening to another sound source during dubbing

Any of the other sound sources (TUNER, CD, PHONO or VCR) can be chosen and listened to during tape dubbing. Choosing another sound source does not interrupt tape dubbing.

To choose another sound source during dubbing, press the INPUT SELECTOR button until the source that you want is selected.

## Easy editing with IPSS

The IPSS function can be used to easily search for selections you want to dub.

- Press the remote control's TAPE I ◀◀ or ▶▶ button during the playback mode to engage the IPSS mode.

To resume dubbing once the desired selection has been found:

- Press the DUBBING START x1 or x2 button (depending on which indicator is lit) after playback of the selection has continued for at least 8 seconds. The cassette tape will be rewound to the beginning of the selection and dubbing will continue automatically.

# Compact disc/Cassette tape care

## Compact disc care

Dust, dirt, scratches, or warps on the compact disc may lead to faulty CD playback. In order to take full advantage of the CD player's performance capabilities, follow the precautions outlined on this page.

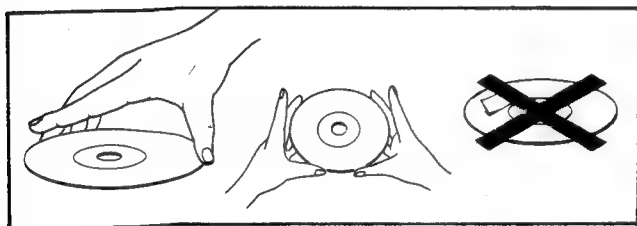
### Removing the disc from its case

While depressing the center section of the case with the forefinger of one hand, use your other hand to lift the compact disc up by its edge.

### Disc handling

Hold the compact disc by the outer edge only, supporting it at the centre hole area with your index finger if necessary. Avoid touching the unprinted side of the disc.

Do not glue any labels or stickers etc., on the disc.



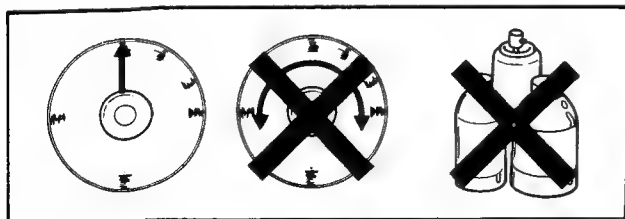
### Disc storage

Do not store the compact disc in a location that is subject to direct sunlight, high humidity, or hot air from heating appliances. Always return the compact discs to their plastic cases for storage.

### Disc cleaning

It is recommended that you periodically wipe the recorded side of your compact discs with a commercially available silicone cloth (such as that used for cleaning camera lenses or glasses) in order to remove dust, dirt or fingerprints. Wipe the disc gently, being careful not to scratch its surface. When wiping the disc, refer to the illustrations. Unlike records, CDs should always be wiped in a straight line from the centre to the edge.

Do not use volatile chemical substances such as denatured alcohol, record cleaners intended for analog records, or antistatic fluids for cleaning, as these may damage the compact disc.



## Cassette tape care

Using the correct type of cassette tapes and taking care of them will help prevent cassette deck malfunction. In order to take full advantage of the cassette deck's performance capabilities, follow the precautions outlined on this page.

### Cassette tape handling

Avoid touching the tape with your fingers as high frequency signals cannot be recorded in places which are not clean. Dirty tapes may also cause distortion or sound loss during playback.

### Storage

Always return the cassette tape to its plastic case after use. Store in a dry place, away from direct sunlight, heat (stoves, heaters etc.) and equipment that generates a magnetic field (TVs, speaker systems etc.).

### Cassette tape types

For the best results during recording, we recommend that cassette tapes specifically made for recording Hi-Fi music be used. We do not recommend the use of poor quality tapes or C-120 (120 min.) tapes as the tape is very thin and can easily twist or get tangled around the capstan and pinch roller. Ferri-chrome cassette tapes are not recommended for recording.

# Cassette deck maintenance

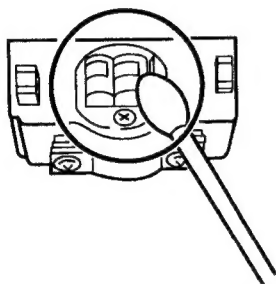
After prolonged use, the parts of the cassette deck which come into contact with the tape (heads, capstans, pinch rollers and tape guides etc..) will become dirty due to oxide from the tape and other contaminants. This can lead to such problems as loss of sound due to unstable tape transport etc.. To ensure good performance, the cassette deck should be periodically cleaned with a commercially available cleaning kit or cleaning tape.

## How to clean the cassette deck

Dip the cleaning kit's cotton swab into the appropriate cleaning fluid (most cleaning kits contain two types of cleaning fluid: one for metal parts and one for rubber and plastic parts) and wipe the surface of the heads, tape guides, capstans and pinch rollers.

After cleaning, wipe with a dry cotton swab. Use the cassette deck only after the parts have completely dried.

Use a liquid cleaner exclusively meant for tape decks.



## Demagnetizing the heads

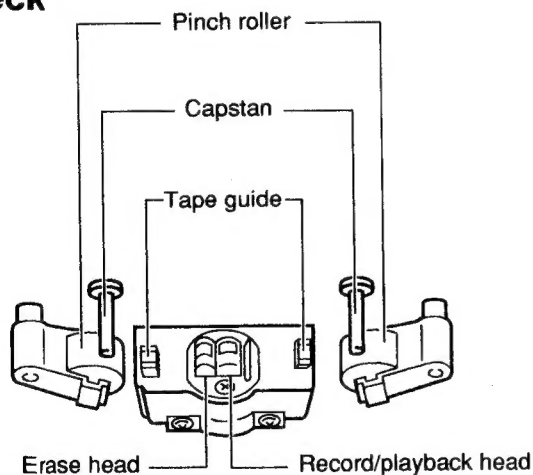
After much use, slight magnetism may build up on the recording and playback heads causing loss in high frequency sound and increases in noise. To eliminate this problem you should periodically demagnetize the head with a commercially available head demagnetizer. Demagnetize the metal parts of the capstan as well.

Make sure that the cassette deck's power is turned off before demagnetizing.

## Keep the cabinet clean

- Clean the cabinet with a soft, dry cloth.
- If the cabinet is excessively dirty, clean it with a mild detergent.
- Never use paint thinner, etc., to clean the cabinet as this may damage the finish.

## Mechanism layout of the tape II deck



# Connecting additional components

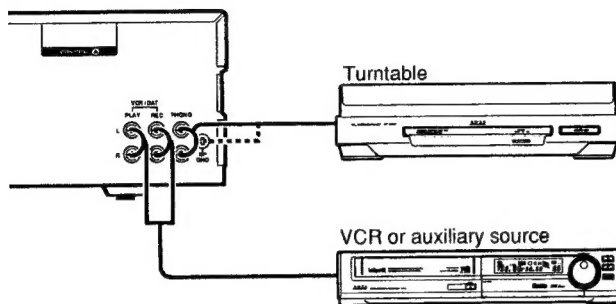
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## Before proceeding:

- Make sure that the power to all components is off before making connections.

## PLAY, REC, PHONO terminal connections

Use the following connections to connect a turntable, VCR, or auxiliary source (cassette deck etc.) to the system. For detailed information concerning connections, refer to the component's operator's manual.





# Troubleshooting

Should you have any problems during the operation of this stereo system please check that all the controls are set to their proper positions and that all the connections are correct (refer to this manual for the proper procedures). If a problem persists refer to the advice below.

If the problem can not be corrected with the instructions below, write down the model and serial numbers and all pertinent data regarding warranty coverage, as well as a clear description of the problem and contact your nearest AKAI service centre.

PROBLEM	CHECK POINT
<ul style="list-style-type: none"> <li>● No power.</li> <li>● No sound.</li> </ul>	<ul style="list-style-type: none"> <li>● Make sure power cord is connected securely to household AC outlet.</li> <li>● Make sure all connections are secure.</li> <li>● Make sure head phones are not connected to PHONES jack.</li> <li>● Make sure muting is not engaged.</li> <li>● Check station tuning.</li> <li>● Make sure input selector and volume control are set properly.</li> <li>● Make sure CD or cassette tape is loaded properly.</li> </ul>
<ul style="list-style-type: none"> <li>● Bass or stereo sound is not reproduced fully.</li> </ul>	<ul style="list-style-type: none"> <li>● Speaker system connections are not correct. Make sure polarity of speaker connections are correct.</li> </ul>
<ul style="list-style-type: none"> <li>● Random playback does not function.</li> </ul>	<ul style="list-style-type: none"> <li>● Programme playback has not been cancelled. Press the CLEAR button to cancel programme playback.</li> </ul>
<ul style="list-style-type: none"> <li>● Distorted playback or sound loss during CD playback.</li> </ul>	<ul style="list-style-type: none"> <li>● CD is dirty or scratched.</li> </ul>
<ul style="list-style-type: none"> <li>● Distorted recording or playback.</li> </ul>	<ul style="list-style-type: none"> <li>● Dirty recording or playback head.</li> </ul>
<ul style="list-style-type: none"> <li>● Edit recording does not operate.</li> </ul>	<ul style="list-style-type: none"> <li>● CD and cassette tapes are not loaded.</li> <li>● Input selector is not set to CD.</li> <li>● Edit programming has not been completed.</li> </ul>
<ul style="list-style-type: none"> <li>● Humming noise during record playback.</li> </ul>	<ul style="list-style-type: none"> <li>● Ground wire of turntable is not connected to amplifier's GND terminal.</li> </ul>
<ul style="list-style-type: none"> <li>● IPSS or intro scan does not function.</li> </ul>	<ul style="list-style-type: none"> <li>● Blank spaces between selections are less than 4 seconds long.</li> </ul>
<ul style="list-style-type: none"> <li>● Recording does not function.</li> </ul>	<ul style="list-style-type: none"> <li>● Recording defeat tabs on cassette tape have been removed.</li> <li>● Input selector is not set to proper position.</li> <li>● Play button has not been pressed after pressing REC PAUSE button.</li> <li>● REC PAUSE button has not been pressed.</li> </ul>
<ul style="list-style-type: none"> <li>● Remote control does not operate.</li> </ul>	<ul style="list-style-type: none"> <li>● Weak batteries. Replace the batteries.</li> <li>● Obstacle in front of remote sensor window.</li> </ul>
<ul style="list-style-type: none"> <li>● Tape operation buttons can not be operated.</li> </ul>	<ul style="list-style-type: none"> <li>● TAPE OPERATION button has not been pressed to set the buttons for desired deck operation.</li> </ul>
<ul style="list-style-type: none"> <li>● Timer recording or wake up function does not operate.</li> </ul>	<ul style="list-style-type: none"> <li>● Clock is not set to present time.</li> <li>● "TIMER REC" or "TIMER WAKE" indicator is not lit.</li> <li>● CD or cassette tape has not been loaded.</li> <li>● Stations have not been memorized.</li> </ul>
<ul style="list-style-type: none"> <li>● Wow and flutter in sound.</li> </ul>	<ul style="list-style-type: none"> <li>● Dirty heads, capstans, tape guides or pinch rollers</li> </ul>

# Specifications

## TUNER SECTION

Tuning range .....	FM 87.5 - 108MHz MW 531 - 1602kHz (9kHz step) 530 - 1710kHz (10kHz step, U version only) LW 144 - 351kHz 144 - 288kHz (V version only)
Usable sensitivity .....	FM 13.2dBf (17.2dBf:V version only) MW 500 $\mu$ V/m LW 800 $\mu$ V/m
Timer .....	Quartz lock daily timer (Timer record/Wake-up/Sleep)

## AMPLIFIER SECTION

Power output .....	<b>MX-650:</b> 60 W + 60 W (6ohms, 10% THD,EIAJ) 50 W + 50 W (6ohms, 1% THD,DIN) <b>MX-550:</b> 50 W + 50 W (6ohms, 10% THD,EIAJ) 35 W + 35 W (6ohms, 1% THD,DIN)
Music power output .....	<b>MX-650:</b> TOTAL 430 W <b>MX-550:</b> TOTAL 350 W
Peak music power output ...	<b>MX-650:</b> TOTAL 700 W <b>MX-550:</b> TOTAL 600 W
Frequency response .....	10 Hz - 100 kHz (10Hz:-4dB, 100kHz:-3dB)
Required speaker imped- ance .....	6 - 16 ohms (Front speaker) 8 - 16 ohms (Surround speaker)
Input Sensitivity .....	PHONO 3 mV/47k $\Omega$ VCR 230 mV/22k $\Omega$

## DECK SECTION

Frequency response .....	Normal tape : 35 Hz - 14,000 Hz CrO <sub>2</sub> tape : 35 Hz - 15,000 Hz
Wow and flutter .....	0.09% (WRMS), 0.15% (DIN)

## CD SECTION

Frequency response .....	20 Hz - 20,000 Hz $\pm$ 1 dB
S/N ratio .....	97 dB
Total harmonic distortion ...	0.01%

## GRAPHIC EQUALIZER SECTION (MX-650 only)

Center frequency .....	63 Hz/160 Hz/400 Hz/1 kHz/2.5 kHz/6.3 kHz/16 kHz
Control range .....	$\pm$ 10dB

## GENERAL

Power requirements .....	220V - 230V, 50Hz for Europe except UK 240, 50Hz for UK and Australia 110/120/220/240V, 50/60Hz convertible for other countries
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Dimensions and weight (W  $\times$  H  $\times$  D mm, kg)

### MX-650:

AX-650 .....	270 $\times$ 200 $\times$ 313 , 7.0 kg
TP-650 .....	270 $\times$ 112 $\times$ 302 , 2.1 kg
CD-650 .....	270 $\times$ 88 $\times$ 324 , 2.5 kg

### MX-550:

AX-550 .....	270 $\times$ 200 $\times$ 313 , 7.0 kg
TP-550 .....	270 $\times$ 112 $\times$ 310 , 2.0 kg
CD-650 .....	270 $\times$ 88 $\times$ 324 , 2.5 kg

## STANDARD ACCESSORIES

Remote control (RC-S650) .....	$\times$ 1
Batteries .....	$\times$ 2
FM long wire antenna .....	$\times$ 1
Plug adaptor .....	$\times$ 1
AM loop antenna .....	$\times$ 1

- For improvement purposes, specifications and design are subject to change without notice.